

THE GEOGRAPHY OF THE OCEAN: KNOWING THE OCEAN AS A SPACE by Anne-Flore Laloë, Routledge, Abingdon, 2016, 164 pp., ISBN: 9781409421436, £95.00 (hardback)

This volume aims to put oceans at the centre of geographical discourse. Published as part of Routledge's 'Studies in Historical Geography' series, and based originally on a PhD thesis at Exeter, it makes a highly useful contribution to the literature on the social construction of the oceans. In defining her study, the author adopts the term 'ocean-space' from Phillip Steinberg to 'capture both the specificity of the world ocean and the fluidity between the study of landward and seaward domains, as both are socially and physically linked' (1999, pp. 367-368). The term signals Laloë's concern with the ocean-space's own physical characteristics as opposed to its subjection to terrestrial protocols of measuring and distributing surfaces. In other words, the focus here is on the ocean itself with its 'physical attributes, wavering surface, tidal rhythms and unbounded connectivity and what these things means for human and nonhuman interrelations within it, which are rarely at the centre of human geographers work' (p. 1). In line with this, the author is careful to set her work apart from maritime history which, in her view, tends to focus on how humans have exploited, governed and navigated the oceans.

The author relies on extensive archival and historical material, connecting small, local stories about how we have come to 'know' the oceans with a broader epistemological concern for how knowledge is produced, and how it travels across time and place. This diachronic approach is employed across three time frames: the 'discoveries' of the Americas, the growth of scientific knowledge in the Enlightenment, and technological attempts to know the deep sea and seabed. The book is concerned with the World Ocean as the author wishes to consolidate the notion that there is no natural way to divide up the ocean-space based on its physicality. Yet the examples are heavily focused on the Atlantic Ocean. Nonetheless, each case advances Laloë's goal of understanding how the ocean-space has been negotiated as a geographical space.

Much of the narrative is driven by the relationship between science, culture and knowledge production. In the Age of Discovery, for example, the author shows how at the start of the sixteenth century, the Atlantic ocean-space emerged as both a physical space and discursive idea. The discovery of the Americas led to a new model of the world's oceans and of the Earth's size, away from widely accepted biblical tripartite understandings. While this is well known, Laloë's contribution is in demonstrating how the process and nature of knowing the Atlantic triggered a wider revolution in knowledge production where evidence, sight and sound became central. This led to the Enlightenment enterprise of turning the Atlantic into a 'fact' through such things as the invention of the chronometer, the measuring of magnetic fields, and the study of sea currents and wind. Critical to the inquiry is how social and cultural factors impacted the acceptability, or not, of these new understandings. Laloë uses the example of Matthew Maury's work on large scale water movements to explore how communication networks helped give his ideas legitimacy amongst sailors and merchants, aiding the interests of European empires. However, and much to her credit, the author is careful throughout the book to bring the discussion back to the water – that is, back to ocean-

space itself and the ways in which its physical characteristics actively shape our interaction with it.

This book will appeal to those interested in the oceans and maritime studies, as well as cartographers and human geographers more broadly. Although issues of climate change are not addressed, the book is also relevant for those concerned with environmental degradation and its impact on marine life and human wellbeing. The author hints at this in her call to relocate the ocean-space globally within a connected and interdependent system. Laloë certainly aims for a wide audience given her desire to put the ocean-space at the heart of the discipline. To this end, she usefully charts where future work may lie. She notes, for example, that her focus on scientific enterprise is partial and that greater attention to cultural expressions of the ocean-space in literature and art could provide a necessary correction to works which treat the oceans as backdrops rather than protagonists. As is, there is plenty to dwell on and appreciate in this volume. It is clearly written and accessible to non-specialists, without losing detail or complexity.

REFERENCE

Steinberg, Phillip (1999) Navigating to Multiple Horizons: Toward a Geography of Ocean-Space, *The Professional Geographer*, 51(3): 366–375.

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